

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for accessing remote devices on a communications network ~~using out-of-band access~~, comprising:

a first network configured to enable a user computing device to access remote network elements;

a firewall in communication with said first network and configured to restrict access to said first network and the user;

a router in communication with said firewall and a remote network element, an in-band access path defined by a communication path between the user computing device and the remote network element via said first network, firewall, and router;

a first server in communication with said firewall;

a modem bank in communication with said first server and further in communication with the remote network elements via a public switched telephone network (PSTN), an out-of-band access path defined by a communication path between the user computing device and the remote network element via said first network, firewall, first server, modem bank, and PSTN;

[[a]] said first server [[operable]] configured to[[,]],

- (1) receive a request to communicate with the one or more remote network elements;
- (2) authenticate a user;
- (3) facilitate a session with a second server for establishing connection with an external network element;
- (4) establish secure pathway over a communications network; and
- (5) transmit data for monitoring system functions; and

[[a]] said modem bank including a plurality of modems in communication with said first and second servers and operable to authenticate a request to access remote network elements and to communicate operational status of a plurality of network elements.

2. (Original) The communications system of claim 1, wherein said second server is further operable to select a specific modem.
3. (Original) The communications system of claim 1, wherein said first server is further operable to log invalid modem-login attempts.
4. (Original) The communications system of claim 1, wherein said first server is further operable to allow specific access to privileged users for accessing network elements.
5. (Cancelled)
6. (Currently Amended) A method for securely retrieving a status of one or more remote devices, the method comprising:

communicating between a user computing device and a network element via an inband access path, the inband access path including a firewall and router;

communicating between the user computing device and the network element via an out-of-band access path, the out-of-band access path including the firewall, a first server, a modem bank, and a public switched telephone network;

requesting, from a ~~first network~~ user computing device, out-of-band access to a ~~second~~ the network element via one of a plurality of modems located in [Ta] the modem bank configured to communicate with a remote modem in communication with the network element;

communicating, from the ~~first~~ network device via the out-of-band access path with the one of a plurality of modems, with the remote modem ~~coupled to said second network element~~; and

authenticating a request to access the remote modem.
7. (Cancelled)
8. (Currently Amended) The method of claim 6 [[7]], wherein authenticating a request includes validating a number dialed to determine if a request from said number is authorized to connect with said remote modem.
9. (Currently Amended) The method of claim 8, wherein authenticating a request further includes processing security credentials to obtain access to ~~said second~~ the network element.
10. (Currently Amended) The method of claim 6 [[7]], wherein authenticating a request further includes one or more selections from the following:

providing a trusted communications pathway between a source element and a destination element using selective call acceptance (SCA);

encrypting communicated data to secure network communications;

authenticating said source and destination elements; and

utilizing automatic number identification (ANI) to authenticate a calling request.

11. (Previously presented) One or more computer-readable storage media having computer-useable instructions embodied thereon, the instructions, when executed on a computing device, cause the computing device to:

receive a first request via an out-of-band process to establish a communications pathway with a network device;

receive a security identifier to authenticate said first request;

identify a dial-up number for accessing a remote modem;

capture information associated with said first request to a log file;

direct a server to identify one of a plurality of modems located in a modem bank that can provide feedback related to said network device;

authenticate a second request, said request being a request to access said remote modem; and

authenticate a third request, said third request being a request to access said network element.

12. (Original) The media of claim 11, wherein receiving a first request further comprises establishing a communications pathway by exchanging packets of information using one or more network protocols.

13. (Original) The media of claim 12, wherein receiving a first request further comprises issuing a command to the network device to authenticate access to the network device.

14. (Original) The media of claim 11, wherein receiving a security identifier includes receiving one or more security-credential components.

15. (Original) The media of claim 11, wherein requesting a dial-up number includes:

issuing a request from a user;

receiving a telephone number for dialing; and

validating said telephone number against a predetermined dialing list.

16. (Original) The media of claim 11, wherein capturing information includes capturing session information.

17. (Original) The media of claim 16, wherein said session information includes data related to one or more of the following events:

failed attempts to access a network resource;

successful attempts to access one or more elements designated as sensitive or critical components;

logon successes and failures;

account creation or deletion;

account maintenance activity;

dial-up activity;

periods of system non-availability; and

security-administration activities.

18. (Original) The media of claim 16, wherein information captured includes one or more of the following:

a user identifier;

a time stamp;

a date stamp

a logon attempt;

a logoff attempt;

a network address;

a client identifier;

a user's location;

a dialed access number; and

a reason for logging an event.

19. (Original) The media of claim 11, wherein directing a server to select a modem includes:

sending a request to establish a communications link with a remote modem;

selecting a modem from a modem pool;

receiving a response from said server to establish a link with said pooled modem; and

dialing a telephone number to said pooled modem to establishing a link with said remote modem.

20. (Original) The media of claim 11, wherein authenticating a second request to access said remote modem includes:

receiving login identification for accessing said remote modem;
verifying said login identification against a list of authorized users; and
notifying said user with a status response.

21. (Original) The media of claim 20, wherein said log-in identification is a username and password.

22. (Original) The media of claim 20, wherein said status response is an approval or denial to access said remote modem.

23. (Original) A system for retrieving status information from a remote device on a communications network, the system comprising:

a server programmed to receive one or more requests from a user to access said remote device and to authenticate that said one or more requests are submitted by an authorized user; and
a modem bank communicatively coupled to said server and to a remote modem,
wherein said remote modem is configured to accept communications only from a predetermined set of addresses or phone numbers, and
wherein said remote modem is coupled to said remote device.

24. (Original) The system of claim 23, wherein said remote device cannot be accessed without authenticating said user.

25. (New) The communications system of claim 1, wherein a second server is in communication with said first server and modem bank via said first server, and configured to select a modem in the modem bank over which to communicate information communicated between the user computing device and remote network elements.

26. (New) The communications system of claim 25, wherein selection of the modem is performed using a rotational selection scheme.